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WHAT THE FOREST SERVICE DOES



U.S. Department of Agriculture • Forest Service
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Forest Service Responsibilities

The Forest Service of the U.S. Department of Agriculture is dedicated to multiple-use management of the Nation's forest resources for sustained yields of water, forage, wildlife, wood, and recreation.

Forests and associated rangelands cover almost two-thirds of the land area of the United States. The Forest Service provides leadership in the management, protection, and use of the resources on these lands to benefit the American people and to assure the productivity of the land and quality of the environment for future generations.

The Forest Service is the largest and most diverse agency in the Department of Agriculture; its 21,000 permanent full-time employees, plus summer employees, make up 35 percent of the Department's peak employment. Forest Service employees handle practically every imaginable natural resource task—from improving the beauty of the forest to showing strip miners how to rehabilitate the land to managing more than 80 percent of the Nation's wilderness.



The Forest Service is responsible for *participating*, both locally and nationally, in designating land use priorities; *formulating* programs that carry out broad management objectives; and *establishing* a pattern of policies and cooperative forestry programs with the States to assure the optimum benefits of forest resources for present and future generations.

Forest Service activities cover three major areas:

1. **Management**, protection, and use of the 188-million-acre National Forest System for a sustained flow of economic and social benefits.
2. **Cooperation** with State foresters, private forest and woodland owners, wood processors, and private and public agencies. This cooperation is designed to focus scientific management and utilization on forest resources to improve the quality and increase the quantity of goods and services produced from forest lands.
3. **Research** in forestry and forest products that supports National Forest management and cooperative forestry programs, plus management of the Nation's forests and rangelands in general.

Management of National Forests and National Grasslands

The 154 National Forests, 19 National Grasslands, and 17 Land Utilization Projects managed by the Forest Service encompass almost 188 million acres of land located in 44 States, Puerto Rico, and the Virgin Islands. The natural resources on these lands represent some of the Nation's greatest assets—assets that have major economic, environmental, and social significance to millions of Americans. These resources are managed, under the concept of multiple use, for a variety of benefits including water, forage, wildlife habitat, wood, recreation, and minerals.

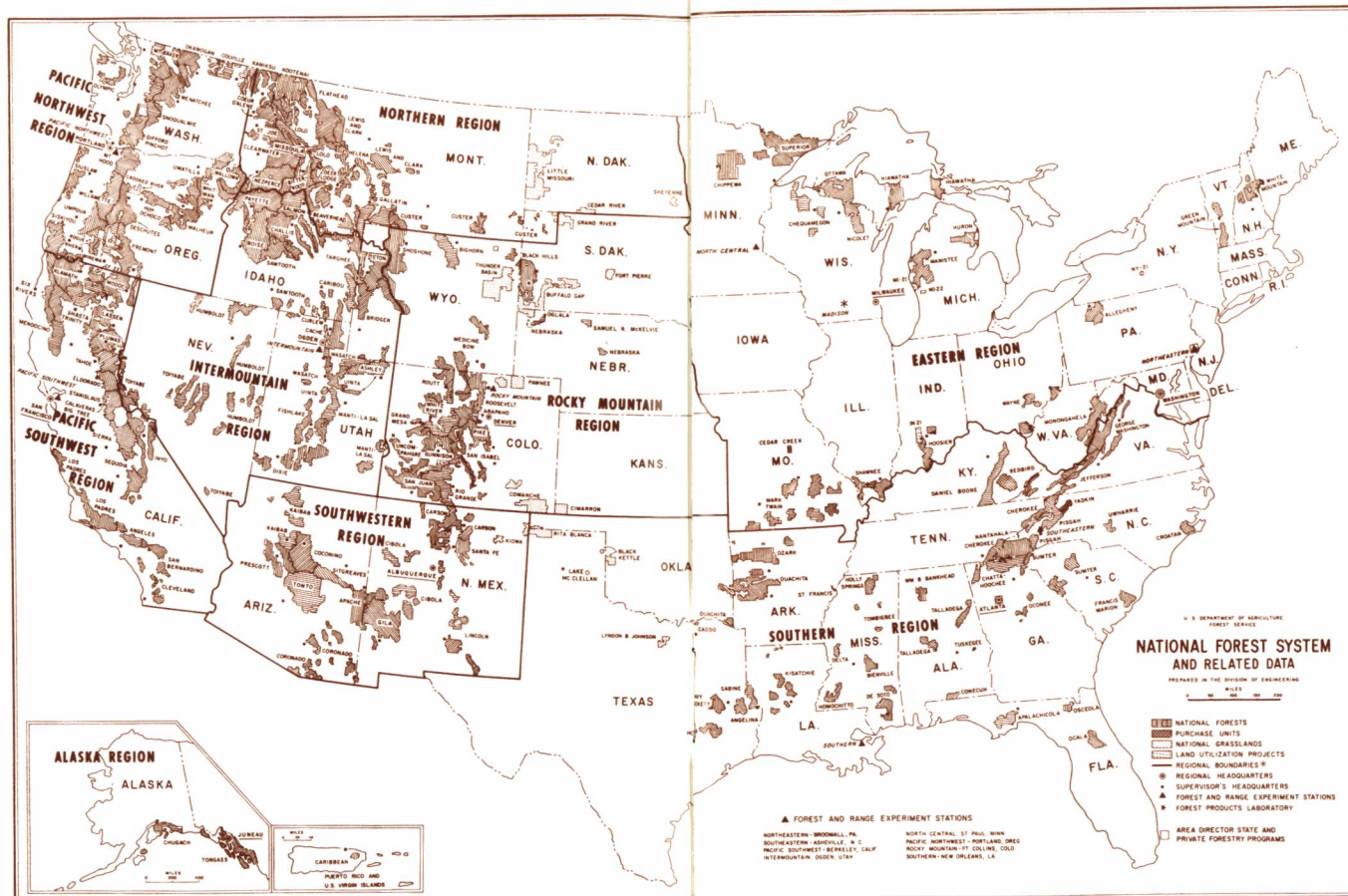
Water

Much of the Nation's water supply flows from National Forest System lands. To accommodate increased

use of these lands, and the associated demand on the water resources, the Forest Service is using broad, interdisciplinary planning to help protect and improve the water resource.

Watersheds are managed to assure an adequate supply of high-quality water to meet the growing demands of agriculture, industry, and the American public.

Lands denuded by wildfire receive prompt remedial attention. Critical portions of burned areas are treated immediately to safeguard the water resource and to help reduce erosion and downstream flooding. During 1977, such emergency treatment was applied to 165,000 acres of National Forest System lands, and Forest Service crews treated and stabilized 16,782 acres of eroded lands to improve water quality and soil productivity.





Forage

The Forest Service manages over 14 percent of the Nation's 1.2 billion acres of forest range, 69 percent of which are in non-Federal ownership. Forage resources on the National Forests are managed to conserve the land and its natural vegetation while providing food for both domestic livestock and wildlife populations. Although forage production is a primary use of rangelands, under multiple-use management concepts, grazing areas also serve as watersheds, wildlife habitat, and recreation sites. Grazing privileges are granted on all forest ranges within the National Forest System, including the 3.8 million acres of National Grassland. Over 1.5 million head of cattle and 1.7 million sheep were grazed on National Forest System lands in 1977 under permit arrangements with private ranchers and farmers. About 18,000 rural families, mostly owners of small herds in the Western States, hold renewable grazing privileges for which an annual fee is charged. Some ranchers depend upon seasonal grazing from Federal lands to "round out" their year-long forage supply.

The Forest Service also shares responsibility with the Bureau of Land Management for the protection of wild and free-roaming horses and burros on public rangelands. Proper grazing use of privately owned forest land is encouraged and assisted through cooperation between State agencies and the Forest Service. The Forest Service carries out intensive programs for rehabilitating forest range areas of low productivity to increase the Nation's potential for forage production.



Wildlife Habitat

In cooperation with the fish and game departments of the States, the Forest Service manages fish and wildlife habitat in the National Forests and National Grasslands to balance populations with available habitat. The National Forests provide sportsmen, bird and animal watchers, photographers, and students the opportunity to enjoy our fish and wildlife resources in their natural habitats.

While National Forest System lands comprise less than one-twelfth of the country's total area, they contain about 50 percent of the Nation's big game. The 83,000 miles of forest streams, 1.8 million acres of natural lakes, and 880,000 acres of artificial reservoirs likewise provide excellent habitat for many species of fish and wildlife.

In fiscal year 1977, the Forest Service improved the wildlife and fish habitat on 1,017,273 acres of National Forest lands. Projects included developing spawning beds for fish, stabilizing stream channels, developing new fishing lakes, blasting potholes for waterfowl, developing sources of water, prescribed burning, protection fencing, and other conservation measures. Top priority is given to maintaining and improving habitats of the 60 endangered fish and wildlife species that are found on or near National Forest System lands. Programs to maintain and improve habitat are carried out in consultation and cooperation with State fish and game agencies.

In 1977, wildlife resources on these lands attracted 16



million visitor-days of fishing and 14.5 million visitor-days were spent in the enjoyment of such "nonconsumptive" pleasures as wildlife photography and bird-watching. (A visitor-day represents the equivalent of 1 person using the National Forest for 12 hours or 12 persons for 1 hour.)

Wood

The United States contains over 500 million acres of commercial forest land in Federal, State, or private ownership. Commercial forest land is that available for and capable of producing crops of industrial wood. The forests on these lands furnish the Nation with the lumber and plywood needed for increased housing and industrial demands and for paper products.

Approximately 59 percent of the Nation's commercial forest land is in farm and miscellaneous small private ownerships (nonindustrial); 14 percent is owned by industrial timber companies; and 9 percent is in public ownership and managed by Federal agencies other than the Forest Service. Of the 188 million acres in the National Forest System, 90.2 million acres are classified as commercial forests.

Largely because of the substantial areas of large, overmature trees in the Pacific Northwest, the National Forests contain 52 percent of the Nation's standing softwood timber. Some 27 percent of the Nation's annual softwood harvest comes from these lands. The National Forests contain about 8 percent of the Nation's hardwood sawtimber and provide about 3 percent of the annual harvest.

National Forest timber is managed on a sustained yield basis to produce a continuous supply of wood products to meet the country's economic demands while maintaining the productivity of these lands. Timber is harvested on each National Forest according to a timber management plan in which the sustained yield harvest has been calculated by foresters actually visiting the timber sites. Timber management plans are revised periodically (usually every 10 years) to reflect changes in inventory, use, and environmental objectives; however, changes affecting the amount of timber available may be incorporated in the plan as they occur.

Timber management plans also describe tree culture and logging systems to be used in harvesting and replanting. Using more efficient balloon, helicopter, and skyline cable systems often facilitates reforestation and protects other resource values. Timber management, including prudent timber harvests, is linked closely to the enhancement of forested watersheds, wildlife habitat, and recreation opportunity.



In preparing individual timber sales, trained foresters prescribe the specific silvicultural and harvesting systems appropriate for the particular ground conditions involved, and determine the measures necessary to protect the environment. These safeguards are included in the timber sale contract.

Our national appetite for wood products has jumped 70 percent during the past 30 years, and the United States will face even greater demands for forest products by the year 2000. In order to boost the timber produced from National Forest lands, more intensive management practices are being applied, such as thinning in young timber stands; salvage of timber damaged by fire, insects, or disease; reforestation of old burns; genetic improvement of tree species; fertilization; and construction of more multipurpose roads.

On National Forest lands, the Forest Service in 1977 reforested 352,800 acres, and improved 386,300 acres of young timber by thinning and release from vegetative competition.

Recreation

Meeting our Nation's increased demands for recreational opportunities in a pleasing forest environment has imposed special problems for forest land managers. America's leisure time interests include a wide variety of outdoor activities: Sightseeing jaunts to observe nature, picnic outings, weekend camping safaris, extended backpack trips into remote wilderness, or attendance at special interest programs of-

fered by visitor information centers. Demand also is surging for water-oriented recreation opportunities like boating, fishing, and water skiing.

In winter, America's skiing enthusiasts flock to the popular commercial skiing areas, many of which are located on National Forest lands. There is also a growing interest in cross-country skiing. Hunting and fishing continue as favorite activities. In 1977, there were 220 million visitor-days of recreational use of the National Forests. This total is greater than that on any other federally administered land.

Many of the opportunities for recreation in the National Forests are provided by the 97,000 miles of trails, streams, woodlands, and the natural forest environment. However, the Forest Service has developed a wide range of facilities for the convenience and enjoyment of those who camp, picnic, boat, swim, or participate in winter sports. In 1977, the Forest Service maintained 79,200 developed family camping units, 22,200 picnicking units, 315 swimming sites, 906 boating sites, and 218 winter sports sites. National Forest recreational facilities have a combined total capacity of 1.4 million people at any one time. The Forest Service administers 7 National Recreation Areas and all or part of 11 rivers within the National Wild and Scenic Rivers System. Also, over 22,000 cultural, historical, and archeological sites have been identified within the National Forest System.

The Forest Service pioneered the establishment of wilderness in 1924 with the Nation's first such area—the Gila Wilderness in New Mexico. Now increasing numbers of visitors are using the 15 million acres of designated wilderness included in 110 units within the National Forest System. Additional proposals await Congressional approval.

Wilderness trips provide appealing adventures in solitude. However, due to problems of overuse of some of the especially popular areas which are ecologically sensitive, more restraints in public use are increasingly needed to protect the wilderness resource. Wilderness also has great scientific value.

Minerals

National Forest lands produce, or have the potential to produce, a wide range of mineral products: Metallic ores, nonmetallic industrial minerals, fossil fuels, geothermal steam, uranium, and mineral construction materials. Mineral production from National Forest System lands contributes significantly to the Nation's economy.





Responsibility for regulating and managing mineral activities on National Forest System lands is shared by the Forest Service and the Department of the Interior. Actual mineral operations are managed by the Department of the Interior, but surface resources on mineral lands are controlled by the Forest Service.

Mineral activity on the National Forests is authorized by several laws, which allow eligible persons to locate claims and mine mineral deposits—except “leasable” minerals—on public domain lands. The Forest Service manages mining claims by requiring that operators work according to approved operating plans. The approved plans must include provisions for reclamation.

Mineral leasing laws authorize the Department of the Interior to lease lands, including National Forest lands, for production of certain “leasable” minerals including oil and gas, coal, phosphate, potassium, sodium, and sulfur. The Forest Service is authorized to manage the forest resources on leased lands by recommending appropriate conservation measures to be followed by a lease operator. Strip mining of Federal coal is generally prohibited on National Forests.

The minerals-management objective of the Forest Service is to permit environmentally responsible prospecting and mining where those activities are authorized by law and are compatible with the overall forest program. Mineral areas are managed to insure that mineral extraction results in minimal disturbance and damage to the land, and to insure that damaged lands are reclaimed. Reclamation should return dis-

turbed areas to high levels of production and usefulness after mineral operations, and prevent their becoming unsightly scars, a danger to the public, or sources of pollution.

Services That Support Management

Fire Management

The Forest Service, with probably the strongest fire-fighting force in the world, provides direct fire protection and control for National Forest System lands and cooperative fire control on an additional 13 million acres of associated lands. Fire control activities require substantial fire suppression efforts such as building of firebreaks and fire control access roads and, also, vegetation management—all carried out with environmental considerations in mind.

The Forest Service directs a public information program, featuring Smokey Bear, to reduce the incidence of human-caused fires on all wild lands. These efforts include posters, news releases, fire weather warnings, radio and TV messages, and personal contacts.

Actual fire control requires massive support, such as radio communications, air and ground transportation, and other physical aids. A large project fire may require assembly, transport, and full logistical support for as many as 2,000 to 3,000 people within 2 or 3 days. More important yet is the prompt action necessary to protect fire-damaged areas against soil erosion and restore them to productivity as soon as possible.

Recognizing that some fires, when controlled, can help shape desirable ecological balances in an area, the Forest Service uses the principle of fire management (use as well as control) to provide efficient fire protection while contributing to resource management objectives. Fire can be a useful tool in controlling disease, creating more browse for deer and other wildlife, converting brushland to treeplanting sites or for cattle grazing, reducing the threat of wildfire to other resource values or the public, or removing brush and small trees in the understory to release young timber stands from vegetative competition. Fire management provides well planned and executed fire protection, as well as prescribed use of fire to meet resource management objectives.

Engineering

The Forest Service has one of the world's largest engineering groups, and one that is extremely diversified.

Cadastral surveys establish property lines and corners. Topographic maps, furnished by the U.S. Geological Survey, are modified to produce data for recreational, planning, and inventory purposes.

The design, construction, operation, and maintenance of buildings and related facilities require a variety of specialized engineering skills. Protection of watersheds, development of potable water systems, and the collection and disposal of sanitary and solid waste from recreational and administrative sites generate the need for additional skills. In addition, the Forest Service has the world's largest network of roads and trails under a single jurisdiction. This extensive transportation system is needed for the support of all forest uses.

In fiscal year 1977, the Forest Service constructed or reconstructed 9,600 miles of roads and 1,036 miles of trails through timber sales, public works contracts, or use of Forest Service personnel. This brought the total mileage of permanent roads within the National Forests to 221,000 and the total mileage of trails to 97,000, all of which must be operated and maintained.

The Forest Service employs the Nation's largest work force of landscape architects hired by any single United States agency or organization. These skilled professionals help assure that buildings and other facilities, timber harvest, road construction, trail location, range improvements, and other management activities on the National Forests maintain an esthetically pleasing and sound environment.

Cooperative Activities with State and Private Forest Owners

Through cooperative programs with State and local governments, forest industries, and other private landowners, the Forest Service assists in the management, protection, and use of 825 million acres of forest land in State and private ownership.

The Forest Service provides assistance to improve fire control and protection of forests from insects and

diseases; to plan forestry programs so as to obtain the maximum use potential from forest resources; to improve practices in harvesting, processing, and marketing of forest products; and to encourage cooperating State forestry agencies to increase managerial efficiency and effectiveness.

Fire Control

All 50 States have cooperative agreements in the Cooperative Forest Fire Control Program for protecting approximately 700 million acres of valuable wildland. Each State is responsible for providing the needed organization, training, manpower, and equipment to protect these lands within its borders. The Forest Service provides financial and technical assistance.

Another responsibility of the Cooperative Fire Control Program is Rural Community Fire Protection, through which the Forest Service provides technical and financial assistance to State Foresters, on a 50-percent matching basis, for planning, training, and buying equipment for protection of lives and structures by local firefighting forces.

Federal and State governments also cost-share in a cooperative Forest Pest Action Program to detect and evaluate insect and disease damage. Forty-three States now participate in this cooperative program. In addition, Forest Service specialists provide technical assistance to the States in insect and disease management to minimize damages. This same group of specialists is responsible for prevention, detection, evaluation, and suppression of forest pest outbreaks on Federal lands, and coordinates management efforts on lands of all ownerships.

Woodland Management

The Cooperative Forestry Assistance Act provides technical assistance from State and Federal sources to private forest landowners, forest operators and processors, and public agencies. This assistance is directed at urban, as well as rural, forest resources, consistent with wise conservation practices.

The 283 million acres controlled by the more than 4 million owners of nonindustrial private forest land in the United States represent almost 60 percent of the Nation's total commercial forest land. In the future these lands must produce more than half of the Nation's timber needs.

During 1977, about 950 foresters employed in 50 co-

operating States, Guam, Puerto Rico, and the Virgin Islands provided 133,619 assists to small woodland owners. Assistance in tree planting and seeding and timber stand assistance was provided on 921,171 acres.

Highly specialized forestry assistance to loggers and processors is provided through activities, such as the Improved Harvesting Program, the Sawmill Improvement Program, and others. More than 11,900 assists were performed during 1976, saving an estimated 560 million board feet of wood annually, through improved utilization.

The Forest Tree Production Program helped 44 States, Guam, Puerto Rico, and the Virgin Islands to establish forest and windbarrier plantings. Eighty-seven State-operated nurseries produced almost 660 million trees through this program for planting on over 1.9 million acres in 1977. Cooperative tree improvement projects to develop higher quality stock are currently in operation or are planned in 44 States. Over 40 million acres of forest land in private ownership, however, are still in need of tree planting.

The Agricultural Stabilization and Conservation Service has administrative responsibilities for the Agriculture Conservation Program (ACP), through which the Federal government and private forest landowners share the cost of certain approved forestry practices. The government may pay up to 80 percent of actual cost depending on the forest practice. All technical services are performed by the State forestry agencies. ACP forestry practices are implemented to meet one or more objectives, such as protection of forest lands, conservation of soil and water, improvement of wildlife habitat, timber production, and enhancement of forest recreational potential.

The Forestry Incentives Program (FIP), first authorized by Congress in 1973 to share the cost of tree planting and timber stand improvement with nonindustrial private forest landowners, is jointly administered by the Agricultural Stabilization and Conservation Service and the Forest Service. Technical services are provided by the State forestry agencies and, through State contracts, by private consulting foresters. The Federal share of costs ranges from 50 to 75 percent depending upon limits set by State Agricultural Stabilization Committees. The primary objective of FIP is to increase the supply of wood products, especially lumber and plywood, at a reasonable cost. FIP was reauthorized by Congress in 1978, through the Cooperative Forestry Assistance Act.

From 1974 through 1978, under the Forestry Incentives Program, more than 529,000 acres were planted or reforested and timber stand improvement work was completed on 632,000 acres on some 44,000 ownerships.

Small Watershed Program

The Forest Service is responsible for the forestry aspects of the Watershed Protection and Flood Prevention Program, popularly known as the "Small Watershed Program". The purpose of this U.S. Department of Agriculture program is to provide increased watershed protection and flood control through accelerated land treatment and structural installations. Forest Service participation ensures that all forest lands and associated rangelands are evaluated and considered in multiple-purpose watershed projects. Coordination between Forest Service units and coordination with other sponsors and cooperators is an important activity in each project.

Flood Prevention Program

The U.S. Department of Agriculture is responsible for installing watershed improvement measures to prevent floods; to reduce floodwater, sedimentation, and erosion damages; and to further the conservation, development, utilization, and disposal of water. The Forest Service has been delegated responsibility for these on forest lands. Nine active flood prevention projects administered by the Forest Service are now in operation.

River Basin Program

The River Basin Program guides and coordinates water and related land resource planning among several Federal departments, organized in the Water Resources Council, with the States, the Federal-State River Basin Commissions, and Interagency Committees participating. The planning process includes appraising forest land productivity, determining the amounts and costs of needed resource management practices, determining the hydrologic characteristics of forest lands, and analyzing and projecting economic activity related to the use of these lands.

Forest Resource Planning Program

The Forest Service administers the Forest Resource Planning Program which helps provide technical and financial assistance and training to the States to develop long-range plans for the use and management of State forestry resources. The government may pay up to 80 percent of the cost of the planning under this program.

Research to Support Forest-Related Activities

The Forest Service operates the world's largest forest research organization to provide the scientific and technical knowledge necessary to protect the Nation's natural resources, gain the maximum benefit from their use, and leave the environment unspoiled.

Forest Service research covers an extensive range of subjects. Nearly every research program includes a complete array of disciplines—biological, physical, economic, and social sciences—to solve complex problems involving forests and related ecosystems and their relationship to urban and rural areas.

This research is coordinated with research conducted at land-grant institutions, as well as with forestry research conducted at forestry schools. Forest Service scientists also work closely with scientists from other public agencies, educational institutions, and industry. Cooperative agreements provide for joint research efforts, thereby drawing upon the talents and facilities of many organizations.

Forest Management Research

Most of the technology now used in the management of public and private forest and range lands can be attributed to discoveries made in recent years by Forest Service or cooperating scientists. Research projects are varied. Forest Service researchers study the establishment, improvement, growth, and harvesting of timber; protection of forests from fires, insects,

diseases, and animal pests; management of rangelands; improvement and management of wildlife habitats; forest recreation; protection and management of watersheds; efficient marketing and utilization of forest products; and forest engineering and forest economics.

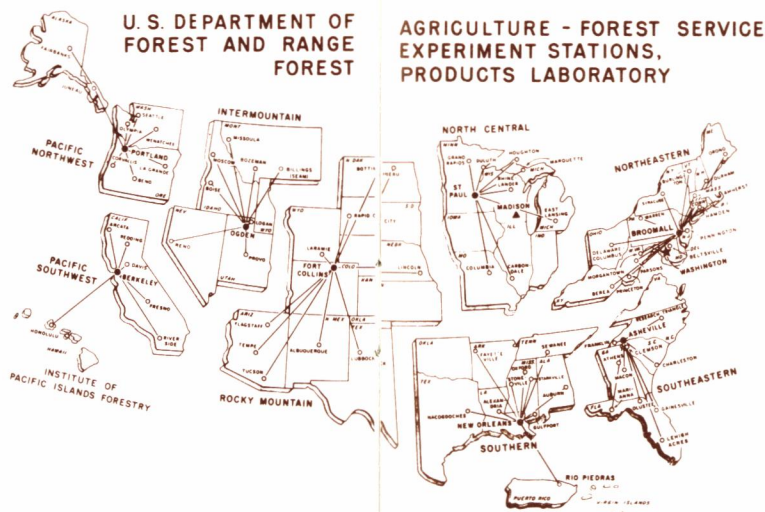
A continuing forest survey is made to provide comprehensive information on the extent and condition of forest lands, the volume and quality of timber sources, trends in timber growth and harvest, and the long-range supply and demand outlook.

Improved inventory techniques, including expanded use of remote sensing and methods to collect information on all renewable resources, are being studied and incorporated into the inventory process.

In late 1973, the latest findings and projections of supply and demand estimates for timber products through the year 2020 were published in the "Outlook for Timber in the United States." The report forecasts a shortage of softwood sawtimber supplies by 2020 and suggests alternative actions to alleviate the deficit.

Trees are being bred to improve resistance to insects, diseases, and air pollution. Special emphasis is being given to replacing persistent pesticides with biological and natural controls, safe and more efficient application of microbial agents, and use of more selective and less persistent chemicals not hazardous to other forms of life. Genetic improvement of hardwood species is being studied to meet anticipated demands for increased supplies of wood for fiber and energy.

- LEGEND
- ★ NATIONAL HEADQUARTERS
 - EXPERIMENT STATION HEADQUARTERS
 - ▲ FOREST PRODUCTS LABORATORY
 - RESEARCH PROJECT LOCATIONS



Improvement of big game habitats is being sought with studies of wildlife plant preferences. Wilderness research analyzes the changing desires of users and develops the means to meet them without site deterioration. The socio-economic values of outdoor recreation are being evaluated. Range resources are being inventoried more accurately through a system of aerial color photography. The relationship between forage production and timber harvesting is receiving attention.

Research in solving environmental problems is being given major emphasis, including the potential use of trees and shrubs to muffle unwanted noise; the development of mining technology to minimize the use of stripping systems in coal production; and the rehabilitation of lands scarred by fires, floods, and mining activities.

New fire management techniques are used to improve environmental quality, including correlation of burning periods with favorable meteorological conditions, control of smoke emissions from prescribed fires, proper location and design of fuel breaks in brushy areas, and more effective application of prescribed fires. Recently developed remote sensing techniques are useful in this work.

Research on improved engineering systems for harvesting timber in remote and steep areas is emphasized because of environmental considerations. Balloons, helicopters, and skyline cable systems are being widely tested, and Forest Service scientists are developing new machines to remove logs from young stands on steep slopes or other sensitive areas without damaging the soil or uncut trees. Tables, diagrams, and formulas have been developed to help managers in the field calculate the capability of each system under various conditions.

Wood Utilization Research

Forest products utilization research is producing miracles in stretching America's wood supply. Wood scientists who probe the extended uses of wood as a renewable resource know that in strength, durability, and cost, wood can compete successfully with practically all other building materials. The Forest Products Laboratory at Madison, Wis., estimates that improved utilization of wood residues, use of thinner saw blades, better dry-kiln management, computerized sawmilling, development of new products, and other similar measures can help reclaim much of the wood residue that is not now fully used. Of the 340 million tons of wood, bark, and foliage removed from forest



lands each year, 145 million tons are unused logging residues. Wood utilization research is directed at reducing this waste residue in order to make the wood resource stretch further.

Forest Service research has developed a system through which small logs are sawn into boards, then trimmed, and their edges fused together to make panels of desired width. This system permits greater utilization of small logs and increases yields from logs by about 10 percent. Researchers at the Forest Products Laboratory have also perfected a method for rapidly producing large structural timbers from small trees. The new process, called press-lam, uses 30 percent less wood than traditional methods and allows manufacturers to make timbers much larger than the trees that provided the wood.

In structural uses of wood, Forest Service scientists have made many significant contributions. An engineer at the Forest Products Laboratory has invented a new frame design for house construction, called truss-frame, that can save both money and lumber. Advantages of the system are that less framing lumber is used per square foot of house, only one size of framing lumber is used, and ductwork for heating and cooling is eliminated.

Energy Research

Forest Service scientists are exploring the potential of forest lands for energy production. Energy research programs are improving the harvest and use of forest residues, particularly hardwood species, for energy; assessing the feasibility of intensive culture of "fuel plantations"; developing practices to increase oleoresin production; discovering more efficient uses of wood in construction; and developing processes to convert residues from wood-using industries into substitutes for petroleum-based products. Through a major research project, the Surface Environment and Mining Project (SEAM), Forest Service scientists are discovering new ways to remove mineral and energy resources with minimal environmental disturbance and to reclaim the land for other uses. Forest Service urban forestry research, as well, is showing how urban forests can help moderate extremes of hot and cold in urban areas, resulting in fuel savings of between 10 and 25 percent.

Human Resource Development

Human Resource Programs

No programs can be successful without stimulating people. Development and wise use of human resources is as important as conserving natural resources. The Forest Service depends on basic forestry activities to motivate people and help minority, economically depressed, elderly, handicapped, and youth groups.

Youth Conservation Corps

The Forest Service, in cooperation with the Department of the Interior, administers the Youth Conservation Corps. This program accomplishes needed conservation work on Federal lands administered by the Secretaries of Agriculture and the Interior, as well as on other public lands under grants to the States. It provides more than 40,000 men and women participants, ages 15 to 18, from all walks of life, with the opportunity to learn more about their natural environment and heritage while being gainfully employed during the summer.

Volunteers in the National Forest

The Volunteers in the National Forest Program permits concerned individuals or groups to contribute their services to the improvement of the Nation's natural resources.

Cooperative Human Resource Programs

Under an agreement with the Department of Labor, the Forest Service operates 17 Job Corps Civilian Conservation Centers. Annually, Forest Service Civilian Conservation Centers provide education and vocational skills training to some 8,000 disadvantaged 16- to 21-year-old youths. The vocational skills training program includes 46 training programs conducted by five construction trade unions. These Job Corps union training programs are placing more than 90 percent of the Corpsmen who complete training in jobs, at an average starting wage of \$3.41 per hour.

Young Adult Conservation Corps

The Young Adult Conservation Corps (YACC) provides employment to young men and women between the ages of 16 and 23 who are unemployed and did not leave school for the purpose of joining the Corps. The enrollees engage in useful conservation work on Federal and non-Federal public lands and waters. The program is a year-round operation and has both residential and nonresidential components. The YACC is administered by the Forest Serv-

ice and the Department of the Interior through an interagency agreement with the Department of Labor. Annually, 24,000 young adults participate in Forest Service, USDI, and State programs. In recruitment, preference is given to those candidates residing in areas having high rates of unemployment.

Other Titles of CETA:

The Forest Service cooperates with State and local governments under various titles of the Comprehensive Education and Training Act through agreements with local sponsors. Several thousand otherwise unemployed and underemployed persons perform conservation work on National Forest lands, providing public service and getting the training necessary to move into unsubsidized jobs.

Senior Community Service Employment Program

The Forest Service, through an interagency agreement with the Department of Labor, operates a Senior Community Service Employment Program. Under the present agreement, the Forest Service is authorized to enroll 2,548 persons in 39 States and Puerto Rico. The objective of the program is to improve the welfare of underprivileged, low-income, and elderly citizens in rural areas by hiring them part time to improve National Forest lands. These jobs should aid participants in regaining a sense of involvement with the community and the mainstream of life.

Job Opportunity Programs

Through an interagency agreement with the Department of Commerce, the Forest Service operates the Job Opportunity Program. It provides emergency financial assistance to stimulate, maintain, and expand job-creating activities in urban and rural areas suffering from unusually high levels of unemployment. The Forest Service share of the program, more



than \$33 million, funded 191 projects in 35 States, Guam, and Puerto Rico; 61 of these were grants to States.

Some of the other cooperative work-training programs in which the Forest Service participates under various authorities are: College Work Study, Vocational Education Work Study, and the Work Incentive Programs.

Through these human resource development programs, the National Forests benefit from an estimated \$40 million of resource improvement work completed each year.

Planning for the Future

To assure the sustained ability of the National Forests to help fulfill the desires and expectations of the American people and to help maintain the quality of the environment and productivity of the land, the Forest Service relies upon long-range planning of its programs. The Forest and Rangeland Renewable Resources Planning Act of 1974 (Public Law 93-370), bolstered by the National Forest Management Act of 1976 (Public Law 94-588), provides a legislative mechanism for long-range planning of Forest Service programs. This long-range planning mechanism centers around two documents that the Forest Service must periodically develop:

1. An *Assessment* of long-term demands and supplies of renewable resources on the Nation's 1.6 billion acres of forest and rangeland, under all ownerships, and the opportunities to better use these resources.
2. A long-range *Program*—based upon the Assessment—of Forest Service activities, including management of the National Forest System, State and private forestry programs, and forestry research.

RPA is a giant step forward, both in assessing the future supply and demand of renewable resources and

harmonizing Forest Service programs with that future. RPA recognized that resource investments, by their nature, must be long term. The Program and Assessment form a basis for Forest Service appropriations against a backdrop of long-range planning. And they can lead to renewable resource policies and programs that are economically and environmentally sound.

The first RPA Assessment and Program were developed in 1975, with full public involvement from initial suggestions on document format to final review of the Program that went to Congress.

The 1975 Assessment used information compiled by the Forest Service and other agencies to determine present and potential supplies and likely demands for recreation, fish and wildlife, timber, wilderness, water, and forage from our Nation's forests and rangelands. The Assessment projected demands substantially above what forests and rangelands in the United States can supply with present management programs and existing facilities. Although the United States has a large forest and rangeland base, the Assessment found that the productivity of much of this land is relatively low. With appropriate investments in research, management programs, and physical facilities, the sustained productivity of nearly all of these forests and rangelands can be greatly improved.

The Assessment provided a firm, actual basis for developing the Program to the year 2020. The recommended Program focused on three areas: (1) Timber and range activities aimed at cost-effective resource management and investment opportunities on all lands; (2) emphasis on dispersed recreation opportunities, including additional wilderness; and (3) accelerated efforts in wildlife and fish management, land and water stewardship, and human and community development.

The Forest Service must prepare other Assessments every 10 years starting in 1980. A Program revision is required every 5 years. The public is involved at every step in the preparation of these documents, from the development of their format until their final submission to Congress. Forest Service RPA planning is coordinated with the Soil Conservation Service, another U.S. Department of Agriculture agency, which must prepare a similar inventory and program for soil and water resources under the Soil and Water Resources Conservation Act of 1977 (Public Law 95-192). These documents are important milestones in planning the Nation's renewable natural resource programs.

Informing and Involving the Public

The Forest Service sponsors several major activities that seek better public understanding and more active public participation in natural resource issue solutions and environmental management:

The *environmental education* program places special emphasis on involving educators, resource professionals, and citizen groups in developing skills and techniques for investigating and teaching others about their environment.

The *inform and involve* program aims to inform the public on natural resource matters as the basis for involving them in natural resource decisions being made by the Forest Service both in local areas and nationally.

The *Woodsy Owl* program creates public awareness of pollution and environmental improvement problems and suggests solutions.

Through these and several other activities, the Forest Service works to broaden cooperative programs and problem solving with groups, organizations, and individuals. It is the hope that forest resources and the natural environment will continue to serve the desires and aspirations of the American people, both now and for future generations.

Major Legislation Authorizing Activities Of Forest Service, U.S. Department of Agriculture

1891: Creative Act—Created the National Forest System by authorizing the President to establish Forest Reserves from forest and range lands in the public domain.

1897: Organic Administrative Act—Provided for the protection and management of the Forest Reserves within the Department of the Interior. Granted the right of entry to persons for prospecting, locating, and developing mineral resources, in accordance with provision of the U.S. Mining Laws.

1905: Transfer Act—Transferred the Forest Reserves from the Department of the Interior to the Department of Agriculture.

1911: Weeks Law—Authorized purchase of lands to be administered as National Forest lands for timber production and regulation of flow of navigable streams.

1930: Knutson-Vandenburg Act—Required purchasers of National Forest timber to deposit money, in addition to timber stumpage payments, to cover cost to the United States of replanting harvested areas and removing undesirable trees from the areas.

1937: Bankhead-Jones Farm Tenant Act—Established National Grasslands of 3.8 million acres and authorized other land conservation and land utilization activities in management of acquired lands.

1952: Smokey Bear Act—The Smokey Bear Act (Public Law 359) was passed to protect Smokey's name and character from misuse and unauthorized use.

1955: Agricultural Experiment Stations Act—Consolidated authorizations for appropriations of Federal funds to support agricultural experiment stations in States and territories and provided for regional projects.

1960: Multiple Use-Sustained Yield Act—Reemphasized basic concept that the National Forests are to be administered for outdoor recreation, watershed, range, timber, and wildlife and fish purposes. Reaffirmed the right to develop mineral resources.

1962: Cooperative Forestry Research Act (McIntire-Stennis)—Made funds available to States on matching basis to help carry out research at land grant institutions and State-supported forestry schools.

1964: Wilderness Act—Established the Wilderness Preservation System. Nucleus of the system in 1964 was the 9 million acres of Wilderness that had been so designated by the Forest Service since 1924, when the Nation's first Wilderness was established in New Mexico. Provided for study of additional Wilderness.

1965: Land and Water Conservation Fund Act—Established a system of financing Federal grants of monies to States for recreation and various recreation programs. The Forest Service and other Federal agencies were authorized to purchase lands and water areas primarily suited for recreational development. Funds were to be derived from motorboat fuel taxes, admission and use fees in National Park and National Forest areas, and surplus property sales.

1968: National Trails Systems Act—Established a national system of recreational and scenic trails and designated Appalachian and Pacific Crest Trails as initial components in the system. Provided for studies leading to establishment of other national recreational and national scenic trails.

1968: Wild and Scenic Rivers Act—Designated certain rivers in the Nation as having outstanding scenic, geologic, recreational, cultural, or other attributes meriting the retention of each river in a free-flowing condition, through protected corridors. Initial components were designated and study of other rivers provided for.

1970: National Environmental Policy Act of 1969—Declared the encouragement of harmony between people and their environment to be a national policy and established a Council of Environmental Quality. Required all Federal agencies to prepare reports on environmental impact of planned programs or actions by the agency, and to suggest alternative actions.

1974: Youth Conservation Corps Act—Provided for the summer employment of youth from ages 15 to 18 and the establishment of regional Corps Centers. The youth so enrolled were to be employed for conserving, developing, preserving, or maintaining public lands administered by the Departments of the Interior and Agriculture.

1973: Endangered Species Act—Provides for the protection and conservation of threatened and endangered fish, wildlife, and plant species. Directs all Federal agencies to utilize their authorities and programs to further the purposes of the Act.

1974: Forest and Rangeland Renewable Resources Planning Act (Public Law 93-378)—A planning and budgetary procedure act that required the Forest Service to prepare long-range programs for the National Forest System for the next 40 years in 5-year stages. It included administration, roads and trails, research, and cooperative programs. Report of December 1975 from the Secretary of Agriculture gave an assessment of present and anticipated supply and demand needs and an inventory of present and potential resource opportunities, plus plans for an annual progress report.

1974: Woodsy Owl Campaign—Authorized Secretary of Agriculture to license the manufacture and distribution of Woodsy Owl merchandise and to collect royalty fees for such licensed use, and to protect legal users from unauthorized use of the antipollution symbol.



**Give a hoot!
Don't pollute.**

1976: Federal Land Policy and Management Act (Public Law 94-579)—An act providing organic authority for the management of public lands by the Secretary of the Interior prescribing detailed management direction in such areas as land use planning, land acquisition and disposal withdrawals, range management, and rights-of-way. The Act also provides common statutory authorities for the Secretaries of Agriculture and the Interior in range management, in issuance of rights-of-way, and in certain other miscellaneous aspects of management of lands by the Forest Service and the Bureau of Land Management.

1976: National Forest Management Act (Public Law 94-588)—An act amending the Forest and Rangeland Renewable Resources Planning Act of 1974 to provide for new timber management authorities and a coordinated land management planning process that requires full public participation in the development and revision of land management plans. The Act provides comprehensive new authorities for the management, sale, and harvesting of National Forest timber; provides statutory protection for National Forests created from the public domain; and provides direction for bidding on National Forest timber, road building associated with timber harvesting, reforestation, salvage sales, and the handling of receipts from timber sales activities.

1978: Cooperative Forestry Assistance Act—Authorizes technical assistance, cost sharing, and resource protection programs on non-Federal forest lands, through cooperative agreements with State forestry agencies. Repeals and consolidates legislative authority for cooperative forestry assistance and forestry incentives enacted since 1924, specifically the Clark-McNary Act of 1924, Forest Pest Control Act of 1947, Cooperative Forest Management Act of 1950, and sections of the Agriculture and Consumer Protection Act of 1973.

1978: Forest and Rangeland Renewable Resources Research Act—Authorizes a forestry research program in resource management, environmental protection, forest products utilization, and resource assessment. Repeals, modernizes, and expands the authority for forestry research provided originally by the McSweeney-McNary Act of 1928.

1978: Public Rangeland Improvement Act—Amends the Federal Land Policy and Management Act of 1976 and the Wild Horse and Burros Protection Act of 1971 to provide additional direction and authorities for management of public rangelands. Establishes a statutory grazing fee formula in 16 Western States, excluding the National Grasslands, for 1979-1985.

U.S. DEPARTMENT OF FOREST SERVICE

AGRICULTURE

MAJOR ACTIVITIES

NATIONAL FOREST SYSTEM
Protects and manages 187.6 million acres:

- 183.4 million acres National Forests
- 3.8 million acres National Grasslands
- 450,493 acres of Land Utilization Projects, Purchase Units, Research and Experimental Areas, and others

On these lands are:

- 3.5 million big game animals
- 204.2 billion cubic feet of standing timber (1978)
- 60 endangered wildlife species

Fiscal year 1977 income:

- \$691.6 million from National Forests as follows—
- \$652.1 million from timber sales
- \$11.4 million from grazing fees
- \$14.4 million from mineral receipts
- \$11.7 million from recreation admission and user fees
- \$2.0 million from power and other land uses

In fiscal year 1977:

- \$224.1 million was returned to States

In fiscal year 1977:

- 11.0 billion bd. ft. timber sold (under strict regulation)
- 3.2 billion cubic feet potential annual yield
- 11.4 million animal unit months of grazing
- 654 million forest and windbarrier planting stock distributed, under cooperative programs
- 323,600 acres planted and seeded
- 386,300 acres of timber stand improvement
- 106,580 million tree seedlings produced in nurseries
- 204.8 million visitor-days recreation use (calendar year 1976)
- 9,600 miles of road constructed and reconstructed
- 1,036 miles of trails constructed or reconstructed
- 477,000 acres burned

9 REGIONS

- 154 National Forests*
- 19 National Grasslands*
- 17 Land Utilization Projects*
- 12 Nurseries*
- 666 Ranger Districts*
- 17 Civilian Conservation Centers

*Administered by 121 Supervisors

RESEARCH
through science produces knowledge and technology for

Managing resources
Timber
Water
Range
Wildlife and fish habitat
Recreation

Protecting resources
Fire
Insect
Disease
Pollution

Utilizing wood resources
Wood products
Marketing
Engineering systems

plus

Resource surveys and related economics

8 Forest and Range
Experiment Stations
1 Forest Products
Laboratory
72 other research
locations

234 research projects
3,200 individual studies
864 scientists
1,515 publications annually

COOPERATION
with

State and private
owners

on 455 million acres

to

meet the needs of an
expanding population
through

133,619 woodland owner
assists affecting 921
million bd. ft. of timber
products

Providing protection

Reforestation
(1.6 million acres)
Increasing forest yields
Utilizing forest products
Reducing wood waste
Conserving soil and
water
Providing forest recreation
Enhancing natural beauty
Increasing fish and
wildlife habitat

2 Areas, 7 Regions

Cooperation with 50
States, Puerto Rico,
the Virgin Islands,
Guam, Samoa, and
the Pacific Trust Territories

Public agencies,
community development
organizations, and
forestry industry

